

REMARKS

By the foregoing Amendment, Claims 1, 10, 16, 17, 22, 31, 37, 38, 40-43, 52, 58, 59, 64, 73, 79, 80 and 82 are amended, and Claims 9, 30, 51 and 72 are cancelled. Entry of the Amendment, and favorable consideration thereof, is earnestly requested. Claims 1-8, 10-29, 31-50, 52-71 and 73-82 are currently pending.

All claims stand rejected primarily in view of Bauer (U.S. Patent No. 5,788,688), and in some cases further in view of Flach et al. (U.S. Patent No. 6,589,170) or Suzuki (U.S. Patent No. 7,103,646). Applicant respectfully asks the Examiner to reconsider these rejections in view of the above Amendments and the below Remarks.

The present invention relates to a system for simultaneously controlling primary medical devices, which are connected to a surgical network, and ancillary devices, which are not compatible with the surgical network, or at least transmit some data which can not be carried by the surgical network. Traditional systems, such as the one disclosed in Bauer, for controlling both primary medical devices and ancillary devices have relied upon two completely separate networks for controlling these two different types of devices. Thus, for example, Bauer includes a first network (i.e., a surgical network) comprising an IEEE-488 or RS-485 card (designated as 76 in Figure 3) with which devices 44, 46 are in communication, and a second network (i.e., an ancillary network or video network) comprising a frame store card (designated as 90 in Figure 3) with which VGA monitor 68, video fail-safe switch 94, camera control unit 49 and endoscopic camera 74 are in communication. More specifically, all communications with components of the first network 76, 44, 46 take place via the first network (i.e., no communications concerning any of these components is communicated over the second network),

and all communications with components of the second network 90, 68, 94, 49, 74 take place via the second network (i.e., no communications concerning any of these components is communicated over the first network).

The present invention, on the other hand, recognizes that providing two completely separate networks is often not the optimum solution. Certain types of networks provide advantages over others (e.g., certain types of networks are more conducive to the transmission of command data than others, certain types of networks are more conducive to the transmission of video data than others, etc.), and often it is not the best solution to completely isolate a device to only a single network for all communications for all purposes. All independent claims have been amended to highlight novel aspects of the invention which are based upon this recognition.

More specifically, all independent claims, as amended, recite both a surgical network and an ancillary network. All independent claims also recite that at least one medical device is in communication, at least indirectly, with both networks and that medical command data for controlling the medical device be communicated over the surgical network, and also that a data stream or feedback data generated by the medical device be communicated over the ancillary network. Applicant respectfully submits that Bauer does not disclose, teach or suggest these limitations.

If either of the devices 44, 46 connected to the “surgical network” (i.e., the network with which control unit 66 communicates via the IEEE-488 or RS-485 card 76) are considered to be the claimed medical device, all elements of the independent claims are not satisfied, in that these devices 44, 46 are not in communication in any way with the “ancillary network” (i.e., the network with which

control unit 66 communicates via the frame store card 90), and these devices 44, 46 certainly do not generate a data stream or feedback data communicated via the “ancillary network” (i.e., all communications to/from devices 44, 46 is via the “surgical network”).

If any of the devices 68, 94, 49, 74 connected to the “ancillary network” (i.e., the network with which control unit 66 communicates via the frame store card 90) are considered to be the claimed medical device, all elements of the independent claims are not satisfied, in that these devices 68, 94, 49, 74 are not in communication in any way with the “surgical network” (i.e., the network with which control unit 66 communicates via the IEEE-488 or RS-485 card 76), and these devices 68, 94, 49, 74 are certainly not controlled by any medical command data that has been communicated via the “surgical network.” (i.e., all communications to/from devices 68, 94, 49, 74 is via the “ancillary network”).

Lastly, if the control unit 66 is considered to be to be the claimed medical device, all elements of the independent claims are also not satisfied. As discussed above, it is required by all independent claims that medical command data for controlling the medical device be communicated over the surgical network, and also that a data stream or feedback data generated by the medical device be communicated over the ancillary network. Thus, even if the control unit 66 is interpreted to generate a data stream or feedback data and communicate such over the “ancillary network” (i.e., the network with which control unit 66 communicates via the frame store card 90), it cannot be said that any medical command data for controlling the claimed medical device is communicated via the “surgical network” (i.e., the network with which control unit 66 communicates via the IEEE-488 or RS-485 card 76). This is true because it is control unit 66 itself that generates the medical command data. Thus, it simply cannot be said that the

control unit 66 is communicating the medical command data that it generates to itself via the "surgical network".

In view of the above, Applicant respectfully submits that Bauer does not anticipate or render obvious any claims, as amended, of the present application. Bauer clearly does not disclose every element of any single claim. Moreover, Bauer is concerned with providing centralized control of medical instruments, but is not at all concerned with optimizing network communications between the medical instruments and the centralized controller. As such, one skilled in the art would not have made the significant modifications thereto necessary to arrive at the present invention, as claimed. Nor do Flach et al. or Suzuki teach anything that would lead one to modify Bauer to arrive at the claimed invention, and indeed these references are cited only as teaching Ethernet and wireless networks, as well as self-configuring and CAN buses.

For the foregoing reasons, Applicant respectfully submits that all pending claims, namely Claims 1-8, 10-29, 31-50, 52-71 and 73-82, are patentable over the references of record, and earnestly solicits allowance of the same.

Respectfully submitted,



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